

HW2 (Due 2018/03/19)

1. Write a C++ program to perform the on-line computation for arithmetic expressions. The arithmetic expression is composed of integer operands (between 0 and 65537) and operators (+, -, * and /).

Example: (the italics for program output and boldfaces for user input)

Please input an expression: **1+2+3/4**

The answer is 1.5.

Please input an expression: **20*2-15/2**

The answer is 12.5.

Please input an expression: **20&2**

Wrong operator!

Please input an expression: **<Ctrl>z**

(b) Draw the flowchart for your program.

2. (a) Write a C++ program to print the decimal equivalents of binary numbers. The size of binary number is at most 10-bit.

Example: (the italics for program output and boldfaces for user input)

Please input a binary number: **11001**

The answer is 25.

Please input a binary number: **100000**

The answer is 32.

Please input a binary number: **11111111111111111111111111111111**

Wrong input!

Please input a binary number: **<Ctrl>z**

(b) Draw the flowchart for your program.